

Pluripotency Genes

GO Term	Number observed in condition	Number in category	p value
miRNA metabolic process	2	3	0.000044
miRNA catabolic process	2	3	0.000044
negative regulation of gene silencing	2	4	0.000087
stem cell maintenance	3	25	0.000118
stem cell development	3	26	0.000133
regulation of gene silencing	2	5	0.000145
pre-microRNA processing	2	6	0.000217
regulation of gene expression epigenetic	4	79	0.000241
diencephalon development	3	34	0.0003
stem cell differentiation	3	34	0.0003
ncRNA catabolic process	2	7	0.000304
somatic stem cell maintenance	2	12	0.000943
production of miRNAs involved in gene silencing by miRNA	2	12	0.000943

Early Mesodermal Genes

GO term	Number observed in condition	Number in category	p value
multicellular organismal development	52	2779	2.51E-16
developmental process	52	3031	1.09E-14
anatomical structure development	45	2388	1.03E-13
multicellular organismal process	59	4191	2.59E-13
system development	43	2249	3.28E-13
tissue development	23	663	7.07E-12
organ morphogenesis	23	681	1.22E-11
heart morphogenesis	10	71	1.63E-11
anatomical structure morphogenesis	28	1101	3.73E-11
skeletal system development	16	303	5.06E-11
organ development	34	1668	6.39E-11
embryonic development	19	528	3.52E-10
extracellular matrix organization	10	97	3.66E-10
extracellular structure organization	11	150	1.83E-09
embryonic morphogenesis	14	290	2.37E-09
formation of primary germ layer	7	42	5.84E-09
mesenchymal cell development	7	47	1.33E-08
mesenchymal cell differentiation	7	47	1.33E-08
mesenchyme development	7	48	1.55E-08
heart development	11	201	3.91E-08
mesoderm formation	6	36	7.56E-08
mesoderm morphogenesis	6	38	1.06E-07
negative regulation of cellular process	28	1570	1.19E-07
tissue morphogenesis	10	176	1.19E-07
negative regulation of biological process	29	1723	2.04E-07
gastrulation	7	72	2.75E-07
mesoderm development	7	72	2.75E-07
collagen fibril organization	5	26	4.61E-07

Cardiomyocyte Genes

GO term	Number observed in condition	Number in category	p value
muscle contraction	24	152	6.94E-26
muscle system process	24	167	7.33E-25
striated muscle tissue development	20	149	3.49E-20
muscle organ development	23	235	6.09E-20
muscle tissue development	20	155	7.84E-20
cardiac muscle tissue morphogenesis	11	26	1.18E-17
muscle tissue morphogenesis	11	26	1.18E-17
striated muscle contraction	12	37	1.73E-17
cardiac muscle tissue development	13	53	4.61E-17
heart development	19	201	2.70E-16
regulation of system process	20	276	7.21E-15
cardiac ventricle development	9	23	2.89E-14
cardiac chamber development	9	26	1.09E-13
cardiac chamber morphogenesis	9	26	1.09E-13
circulatory system process	16	174	1.14E-13
blood circulation	16	174	1.14E-13
ventricular cardiac muscle tissue development	8	21	1.08E-12
ventricular cardiac muscle tissue morphogenesis	a	21	1.08E-12
heart process	a	22	1.69E-12
cardiac ventricle morphogenesis	a	22	1.69E-12
heart contraction	a	22	1.69E-12
heart morphogenesis	11	71	2.99E-12
regulation of ATPase activity	7	15	5.22E-12
actomyosin structure organization	a	25	5.62E-12
muscle cell development	a	25	5.62E-12
tissue development	25	663	6.23E-12
organ development	39	1668	7.11E-12
cardiac muscle contraction	7	18	2.54E-11
myofibril assembly	7	19	3.99E-11
striated muscle cell development	7	20	6.10E-11
regulation of heart contraction	10	74	1.25E-10
striated muscle cell differentiation	8	40	3.65E-10
anatomical structure development	14	2388	5.26E-10